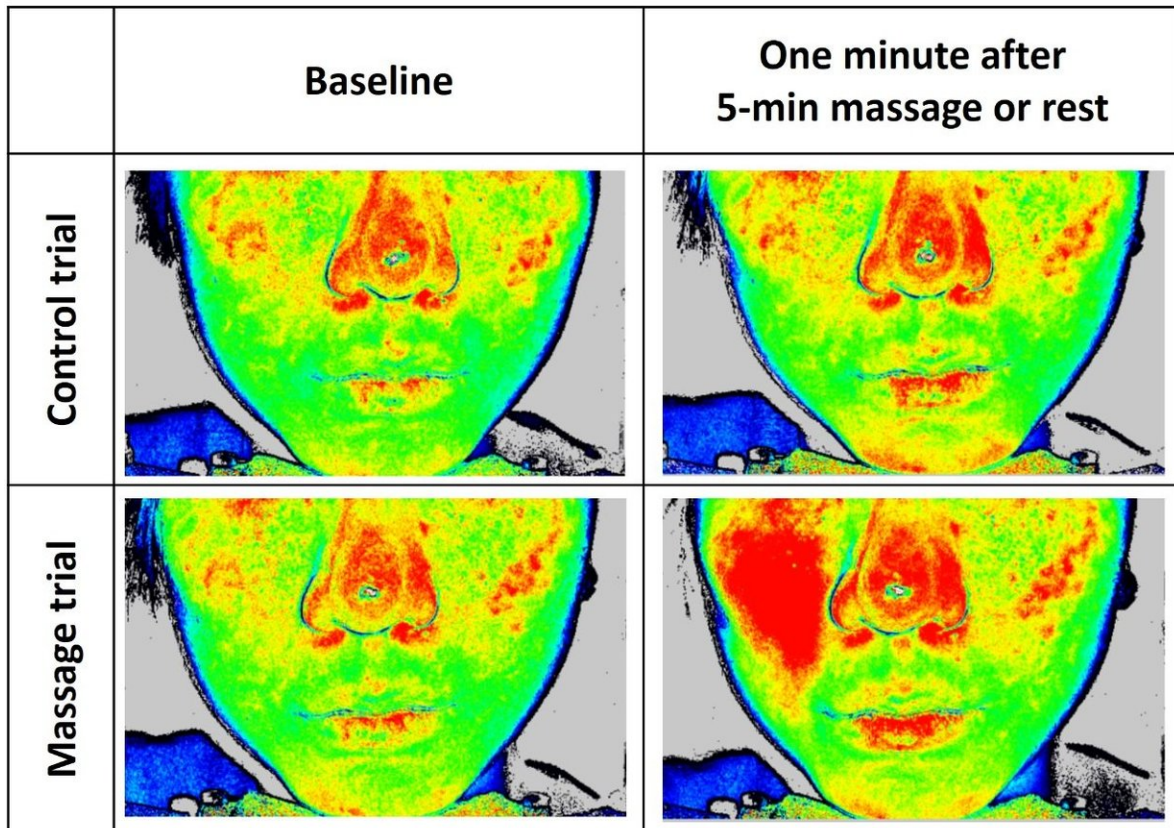


# The science behind face massage rollers

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Imaging using laser-speckle flowgraphy revealed red colors, indicating higher skin blood flow, in the massaged area. Credit: Naoyuki Hayashi

Facial massaging using a roller can increase skin blood flow for more than 10 minutes after the massage. It can also improve vasodilation, the widening of blood vessels, in the long term, according to a study by

researchers in Japan.

Naoyuki Hayashi of the Institute for Liberal Arts, Tokyo Institute of Technology (Tokyo Tech) and colleagues at Tokyo Healthcare University and the Research and Development Center, MTG Co. Ltd., conducted short- and long-term experiments involving participation of healthy male and female volunteers to examine the effects of using a massage roller on facial skin and [blood flow](#). In the short-term experiment, even a five-minute massage can significantly increase facial [skin blood flow](#) in the massaged cheek, with a relative change of up to around 25 percent. Visualization of the change in blood flow was achieved using a non-invasive technique called laser speckle flowgraphy.

One surprising outcome was the duration of the effect immediately after the five-minute massage. "The increase in skin blood flow after applying the massage roller persisted much longer than we had expected," the researchers say in their study published in *Complementary Therapies in Medicine*. "Short-term mechanical stimulation by a facial massage roller increased [skin](#) blood flow for more than ten minutes solely in the massaged cheek."

In the long-term experiment, the researchers examined the effects of daily [massage](#) on the right cheek over a five-week period. They also examined the reactivity of facial blood vessels to a heat stimulus, involving application of a heating probe set at 40°C in order to test whether there were any changes in vascular dilation response.

Findings from the long-term study suggested that using a roller improved [blood flow](#) response, or the so-called vasodilatory response, to heat stimulation. One explanation for this could be that endothelial cells in the massaged area produce more nitric oxide, which is known to be a potent vasodilator.

**More information:** Akane Miyaji et al, Short- and long-term effects of using a facial massage roller on facial skin blood flow and vascular reactivity, *Complementary Therapies in Medicine* (2018). [DOI: 10.1016/j.ctim.2018.09.009](https://doi.org/10.1016/j.ctim.2018.09.009)

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